

REMARKS

Claims Status

Prior to entry of this Amendment and Response, claims 1-3, 5-7, 11-17, 19-22, and 25-27 were pending in this application. In the Office Action, claims 1-3, 5-7, 11-17, 19-22, and 25-27 were rejected. In this Amendment and Response, claims 1, 14, and 15, are amended, and claims 5 and 19 are cancelled, without prejudice. Applicants reserve the right to pursue these claims in later applications. Support for the amendments may be found in the specification, and no new matter has been added.

Upon entry of this Amendment and Response, claims 1-3, 5-7, 11-17, 19-22, and 25-27 remain pending. Applicants respectfully request reconsideration of the objections and rejections in light of the amendments and comments made here.

Claim Rejections

Applicants' counsel thanks the Examiner for the detailed Response to Arguments presented in the Office Action. As amended, independent claims 1, 14, and 15 each recite, in part, "only one second cooperating node" as suggested in paragraph 2 of the Office Action.

Applicants respectfully disagree with the analysis in paragraph 3 of the Office Action regarding the obviousness of the limitation, given the great differences between the cited references and the claimed invention. The differences go well beyond mere adjustment of parameters. Applicants respectfully submit that there should not be any burden of showing criticality here, because the differences go well beyond a mere varying of parameters, but in any case, Applicants believe that the discussion below should be sufficient for any such burden.

Neither Brady nor Flammer teaches or suggests "randomly or pseudorandomly selecting ... only one second cooperating node" in each round. The Office Action admits that Brady "does not expressly disclose that the selecting is done either randomly or pseudorandomly." (para. 7). This is correct; Brady transmits a query to "all immediate neighbor nodes." Brady thus would not consider varying or adjusting a broadcast to all nodes such that it communicated to only one node, because that would be very different from a broadcast, and Brady's stated intent.

The Office Action relies on Flammer for the idea “that it is well known in the art to decrease overload in a network during a broadcast by ‘selectively but randomly address[ing] a small group of nodes in a reception region’ (col. 1, lines 53-57).” This is different from the claimed invention, however, because Flammer mentions only addressing a group in the reception region, and expressly teaches away from a group randomly selected from the cooperating nodes “throughout a network.” The reason Flammer mentions (in the background section) addressing a small group in the reception region is so that network communication does not extend outside the reception region. This is shown in the sentence in Flammer that immediately follows the sentence quoted in the Office Action: “While this reduces the number of packets in circulation, it also runs counter to the intention to broadcast a packet throughout a network....” Col. 1, lines 57-60. Thus, the discussion in Flammer relied on in the Office Action does not teach or suggest selecting a small group throughout the network, but rather a small group of nodes in the reception region.

Thus, assuming, arguendo, that one might be motivated from Flammer to adjust a parameter, as described in the Office Action, to reduce the small group mentioned in Flammer down to one, a node would only “broadcast” to one other node in its local reception region. This is a different mode of operation than the claimed invention, which communicates to a cooperating node without concern about local reception region. In addition, Flammer does not teach or suggest repeated rounds of communication to the small group in the reception region. So, even with a parameter adjustment as alleged in the Office Action, Flammer would not reach the claimed invention.

Moreover, because Flammer focused on the disadvantages of the small group approach, Flammer, and one skilled in the art reviewing Flammer, would not be motivated to further reduce the number of cooperating nodes addressed. Nor would one skilled in the art be motivated to try “randomly or pseudorandomly selecting … only one second cooperating node” instead of the small group in the reception region. Such a change would run counter to the idea expressed in Flammer of reducing communication to a small group within the reception region. Again, it would amount to much more than mere adjustment of a parameter; it would mean a fundamental change in the approach described by Flammer.

Applicants further submit that without an analysis such as that presented in Applicants specification, one skilled in the art would not have expected that “randomly or pseudorandomly selecting … only one second cooperating node” would necessarily lead to a resolution in which all nodes are eventually discovered, or that it might happen in a reasonable period of time. The benefits of such random or pseudorandom selection, in the context of a node discovery problem, as addressed by Applicants are not mentioned in either of the cited references. For that reason alone, Applicants respectfully submit, that any required burden of showing criticality should be met, because this is a new and different approach to the problem.

As such, Applicants respectfully submit that the claims as amended are patentable over the cited references.

CONCLUSION

In view of the foregoing, Applicants respectfully request reconsideration of the application, withdrawal of all grounds of rejection, and allowance of claims 1-3, 6-7, 11-17, 20-22, and 25-27 in due course. The Examiner is invited to contact Applicants' undersigned representative by telephone at the number below to discuss any outstanding issues.

Respectfully submitted,



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Date: 15 Aug. 2006
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